

MAKING DEFENSE DECISIONS

Reason and free enquiry are the only effectual agents against error.

—Thomas Jefferson, Notes on the State of Virginia, c. 1781-1783

MAKING HIGH-LEVEL DEFENSE DECISIONS is a large part of being a senior military officer or career defense civilian. Earlier in your professional life, many of your decisions concerned near-term problems involving small numbers of people and a limited array of resources. You could usually make these decisions by using standard procedures or by relying on your personal experience. Now, increasingly, you will find yourself making or participating in more complex decisions that affect the long-term capabilities of your organization and therefore the welfare of the nation—issues that concern force structure, organization, modernization, operations, and policy.

These kinds of choices will push you into new, unfamiliar circumstances in which procedure and experience are no longer sufficient unto themselves. How do you decide whether to advocate producing a next-generation weapon or to push instead for a complete technological leap forward? This text will help you answer that kind of question by providing a structured approach to problem solving and decision making. It will help you identify and bound not only what is known and unknown, but also what ingredients are necessary to make a good decision. Furthermore, we will discuss analysis, a principal tool that senior leaders use to help identify the most rational course of action. Our ultimate aim is to equip you with the tools to make the intelligent choices that are so necessary for building the right forces for the future.

Sometimes making a good decision is easy: there are problems and decisions in which the best alternative is obvious, the proverbial “no-brainer.” Defense decisions, however, are almost always far more difficult. Why is this so? First, a decision may require that we simultaneously consider many interrelated factors, forcing us to decide which are critical. Often we must balance choices between modernization, force structure, readiness, and infrastructure in an environment of constrained resources that does not permit us to do everything for national security we think we should. Second, a decision may involve substantial risks, especially when there is uncertainty and the consequences of the decision are not entirely predictable. Indeed, uncertainty and the risk it produces dominates force structure decisions in particular. Finally, defense decisions almost always involve conflicting objectives and perspectives. We make decisions ourselves, personally and within our own organizations, and then we acknowledge that each element of the defense community affected by this decision has its own interests and perspectives, which may conflict with our own. We must identify which objectives we will satisfy, which we will not, and by how much.

How do we make such decisions? Judgment and professional experience—our own and that of others—are of course invaluable in making sound and effective defense decisions. But, for reasons we will examine, intuition, experience, and judgment alone may not suffice, especially when decisions involve new and unfamiliar situations. We require a more rigorous, objective, and systematic approach to augment our experience. We call this approach Analysis-Based Decision Making. It can be taught and learned like most of the other skills crucial to good leadership, and when combined with professional judgment, provides a powerful tool.

Procedure, Experience, and Analysis

The methods we choose for making complex defense decisions will have much to do with the success of our decisions. We therefore ask: Are some methods more effective than others and in which situations are they most beneficial? We will consider each of the three main approaches to defense decision making. Keep in mind these three approaches are not mutually exclusive. The skillful decision maker selects the method best suited to the problem and often blends techniques together.

PROCEDURE-BASED DECISION MAKING

We are all familiar with doing it “by the book.” Procedure-based decision making relies upon a body of explicit instructions for guidance in choosing a course of action. The instructions may take the form of standard operating procedures; checklists; tactics, techniques, and procedures; doctrine; manuals; laws and regulations; planning factors; etc. At its heart, procedure-based decision making consists of pattern matching. As we encounter a problem, we compare it with similar problems that we encountered during training. When we find a good match, we apply the solution, detailed in procedures, that we were trained to apply.

Procedure-based decision making has several strengths. First, this approach allows many individuals to benefit from the best knowledge available without having to repeat the mistakes of others who encountered the same problem in the past. At their best, these procedures are the distilled wisdom of intelligent and careful people who have systematically arrived at optimal solutions. Second, this technique introduces predictability and uniformity into the way a large organization deals with standard recurring problems and that, in turn, increases the coherence and focus of the organization. Third, this approach permits us to make complex decisions rapidly when we are severely constrained by time. Finally, by relying on procedures, we do not need to seek specialists for a particular type of problem every time such a problem arises. Generalists trained to use a relevant body of guidance are capable of resolving many complex situations without fully understanding the underlying substance of the problem—just as we operate complex technology daily without understanding much of its inner workings.

Not surprisingly, procedure-based decision making is most effective when we apply it to problems that arise repeatedly in more or less the same form, when the time to decide is short, and when our desire to ensure a uniform response is high. Nuclear engineers and pilots use checklists because avoiding even small omissions or deviations is important. We also rely heavily on procedures in combat. Here time pressures for decisions are extreme and coordination among units requires mutually predictable behavior and responses to problems. The fundamental purpose of combat training and doctrine, at the individual and small-unit levels, is to ingrain individuals with a set of reflexes designed to enable them to recognize different types of

combat problems and to react appropriately and predictably under even the most exceptional conditions.¹

The fundamental weaknesses of procedure-based decision making are its requirement for problems that can be easily categorized and its need for a body of relevant and effective guidance to solve each problem. The decision has to be foreseen or experienced by the creators of the procedures. As long as each decision situation we encounter is close enough to one of those addressed in the procedures, we can effectively rely on them. But what happens when the decision is sufficiently different or complex so that it becomes difficult to know which procedure to use – or whether any of them are applicable? The more senior you become, the more likely it is that the complex problems requiring your attention will be new or unique and fall beyond the ken of procedure-based decision making.

Taking the problem a step further, what happens when an individual in the habit of relying on procedures addresses *all* problems using procedures? As the old saw says, “To a man with a hammer, every problem looks like a nail.” We have all encountered these kinds of people, especially when dealing with bureaucracies; such behavior is counterproductive and frustrating. In sum, so long as a decision fits into the space covered by procedures, procedure-based decision making is effective. The more the problem involves nonstandard factors and issues, the less likely our reliance on procedures will be productive.

THE ROYAL NAVY'S FIGHTING INSTRUCTIONS: PROCEDURE BECOMES DOGMA

A set of procedures may outlive their usefulness as the British Royal Navy discovered in the nineteenth century with its archaic *Fighting Instructions*. At the beginning of the seventeenth century, as large groups of sail-powered warships met in battle, their dominant armament was cannon, most of which were mounted to fire athwartship. To clear their own fields of fire, line-ahead battle formations, wherein one ship followed another, became the norm for fleets. These ships were optimized to sail downwind (square-rigged) and therefore they performed very poorly as they sailed with their bows pointed closer into the wind. Fleets maneuvered strenuously to gain an upwind positional advantage over their opponents from which they could sail down to accept combat or remain upwind to decline it: their adversaries could not effectively sail up to reach them. Ideally, starting from the upwind position, admirals would try to “cross the T” of their foes with their line of battle, bringing the broad-side weight of their ships’ guns to bear, putting an unanswerable raking fire on the exposed ends of the enemy ships. More often, neither side crossed the T and the lines of battle converged until one side was destroyed or broke and fled. Such simple tactics and maneuvers were a necessity with these older, clumsier sailing ships.

The Royal Navy codified these tactics for their officers in their *Fighting Instructions*. This doctrine spelled out which ships were to be placed where in the line of battle and charged each captain to maintain the line of battle without breaks, regardless of the peril to his own ship. The Admiralty de-

1. The importance of predictable behavior in combat is reflected in a current dilemma within NATO. The U.S. Army has adopted a very violent and rapid maneuver doctrine, AirLand Battle, which employs quick concentrations of mass and fires and then dispersion and maneuver, often disregarding traditional front lines and concern for its flanks. Other NATO ground formations, often filled with short-term conscripts and lacking the command and control technology of U.S. forces, are disconcerted that they will not be able to keep up with the tempo of U.S. operations. They are further concerned that their flanks will be exposed to turning movements without continuous allied front lines.

signed these procedures to choreograph fighting a naval battle to the point where every officer in the Royal Navy knew his role and duty regardless of how long he had been under a particular superior. For decades, then centuries, Royal Navy admirals and captains upon pain of court-martial placed their ships in a line of battle parallel to the enemy's and closed the range for a slugging duel.

The leadership of the Senior Service required slavish obedience to the *Fighting Instructions*. For example, after Matthew's disappointing action against an equivalently sized allied Spanish and French fleet off Toulon in 1774, the admiral, his deputy, and 11 of 29 ships' captains were court-martialed. Matthew was cashiered for breaking the line as he maneuvered toward the enemy fleet. His deputy, who failed to support Matthew's charge with anything other than a distant cannonade, was acquitted by the court-martial because he had doggedly maintained the line of battle.² As ship's sails and rigging improved throughout the eighteenth century and ships became more maneuverable, the *Fighting Instructions* remained unchanged.

Accidentally at first, beginning with Rodney at the Battle of the Saints (1782) and then, as improvised by Duncan at Campertown (1797), individual British captains and admirals began winning dramatic battles with tactics contrary to the *Fighting Instructions*. As a ship's captain at the Battle of Cape St. Vincent in 1797, Nelson broke the line of battle and charged the enemy, accompanied impulsively (and fortunately) by several of his colleagues. Their action decided the outcome favorably for the British. As the fleet commander at Trafalgar in 1805, Nelson's battle plan for a perpendicular approach toward the enemy line openly contradicted the procedures in the *Fighting Instructions*. Furthermore, he unconventionally decentralized tactical control of his fleet and ships' maneuvers. After making his overall intentions for the battle clear, Nelson left his captains to their discretion. The French and Spanish lost 17 of their 33 ships of the line to the 27 English ships present; the English suffered meager casualties (including Nelson). As a result of these successes, after almost two centuries and far beyond their useful life, the *Fighting Instruction's* grip upon the Royal Navy permanently loosened.

EXPERIENCE-BASED DECISION MAKING

Relying on experience is a powerful methodology for making decisions when we use it properly. By experience, we mean the aggregate of what an individual has learned from the process of dealing with problems and making decisions in the course of his or her life and career. Viewed this way, experience falls into one of two categories: (1) memories of actual events and (2) rules of thumb, judgments, and intuitions that represent the lessons learned from living through those events. Some of these lessons are quite explicit because you can explain what you think about a particular type of problem and why. Other lessons are more subtle or tacit. You may not know exactly why you feel as you do in a given situation, even though you are confident that you know how to deal with it. We often refer to this as intuition or, perhaps, instinct.

As in procedure-based decision making, pattern matching is essential to experience-based decision making. But, rather than relying on recognizing templates learned by rote, we compare the problem to similar problems that we have solved before. If we find a good match, we apply the option that worked previously to solve the current problem. Usually this process takes place very rapidly, often intuitively. If someone asks us why we have made a particular decision on this basis, we may not be able to answer clearly, because we are not fully aware how we sorted

2. Alfred Thayer Mahan, *The Influence of Seapower Upon History 1660-1783*, 12th ed. (Boston: Little, Brown & Co., 1890), pp.265-268.

through our library of experiences to find a match. This type of decision making is most valuable and successful when the decision maker has a broad range of relevant experiences and there is not very much time to make a decision. Logically, we expect that a more experienced decision maker will make better decisions, as long as there is a match between personal experience and the problem.

Numerous studies confirm the relationship between experience and skill. For example, a pilot's skill correlates with his or her experience measured in flight hours. When we need a surgeon, we ask (or should) how many similar procedures he or she has performed. We should not be surprised that we find exactly the same correlation between skill and experience in defense decision making. This means you should give substantial weight to what your experience, and that of others, tells you about how to resolve a particular problem. This includes listening carefully to your intuition and the other subtle forms that valuable experience-based judgments can take.

At the same time, we must exercise care because experience-based decision making can be misleading for several reasons. First, just as when we apply procedures, we may not know whether our experiences are applicable to the current decision. What may seem at first to be a familiar type of problem may turn out to be quite different from anything we have ever experienced, i.e., we may erroneously conclude that we can apply the lessons of the past to the present, although the present may actually be quite different. We compound the error of mis-recognition when we take so much pride in our experiences that we are reluctant to acknowledge that they may not be relevant. Experience, and the judgment stemming from experience, can be a source of self-esteem and authority. We may be reluctant to surrender that authority by acknowledging that a decision is entirely new to us. In these situations, we may be tempted to stretch our experiences to make them fit the current problem. Yet logic tells us that the harder we have to try to make our experiences fit a decision, the greater is the chance that the situation does not mirror our experiences very well. Poor decision making is the result.

Second, we have difficulty accepting that some experiences, once a source of effective decision making, have become obsolete. The half-life of an experience can be short, particularly in a time of rapid technological and international change. For example, combat experience in earlier wars may no longer help us make major modernization and force structure decisions today. Similarly, experience from earlier periods may not help us resolve contemporary personnel issues pertaining to gender, race, operational tempo, child care, spouses' careers, and the like.

Third, even if our experiences are relevant and current, we may distort our memories of those experiences and, therefore, our lessons from them, in significant ways. This is because we perceive our experiences through our five fallible senses. In addition, our memories of events, which may not be accurate even initially, change dramatically over time. Many of the events we remember most clearly did not happen the way we remember them; thus, the conclusions we draw on the basis of these experiences may be faulty. Many careful studies have shown that humans are virtually hard-wired to make certain kinds of errors when we recollect the past. For instance:

- We tend to be overconfident about our memories and the lessons we draw from them.
- We tend to overestimate the importance of the factors we remember most clearly.
- We tend to believe that events occurring at about the same time are probably related to each other—whether they actually were or not.

- We tend to believe that events had to have occurred in the way that they did and, therefore, that they could have been predicted.
- We tend to do a poor job of estimating and using probabilities.
- We tend to be too slow to revise our lessons and, when we do, we tend to change existing lessons incrementally rather than to create entirely new substitutes.
- We tend to distort our recollections of experiences and their lessons depending upon the current context in which we apply them.

THE 1973 ISRAELI COUNTERATTACKS: EXPERIENCE FROZEN IN TIME³

On 6 October 1973, Egyptian assault forces crossed the Suez Canal and quickly breached the Israeli defensive Bar-Lev line despite its fifty-foot embankments. Heretofore, the Israelis relied upon the massive height of the barrier and, always strapped for manpower, manned the line itself thinly. The backbone of the Israeli defense was mobile tank and infantry combat groups, supported by tactical airpower, designed to quickly counterattack and eliminate any Egyptian penetrations. Their confidence in this particular defensive doctrine was based on Israeli experience in the previous Arab-Israeli War. In 1967, unsupported armored units had easily penetrated Arab defenses, maneuvered with impunity, and captured droves of prisoners. In a similar manner, Israeli aircraft ranged the 1967 battlefield at will, providing excellent reconnaissance to the ground commanders and destroying much of the opposition in their paths.

By 1973, however, the Egyptian Army had changed dramatically. Its anti-tank and anti-aircraft defenses were now layered and many were portable. Their heavier, longer-range weapons were positioned along the Egyptian bank where they could cover a beachhead across the Suez and the lightest systems, often man-portable, went forward with the infantry in great quantities.

After discovering the Egyptian amphibious assault across the Suez Canal on 6 October, Israeli aircraft attacked Egyptian positions all along the canal using their 1967 tactics. The Egyptians damaged or destroyed over half the attackers; in one raid, over 80 percent of the aircraft were hit. The Israeli Air Force was forced to scale back its operations near the canal. Tactical intelligence gathering suffered as a result as the Egyptians carefully consolidated their positions.

Meanwhile, the Israeli mobile combat groups assembled and counterattacked locally using the dramatic rushes that were so unstoppable in 1967. The Egyptian infantry, schooled in new tactics and confident with its new weapons, ambushed the attackers and destroyed almost all the Israeli armored vehicles. Larger Israeli counterattacks that night and the next day were also devastated. One attack lost 90 percent of its tanks in the first ten minutes. Moreover, the Israeli armor division counterattacking the beachhead lost two-thirds of its tank strength in 48 hours of combat to the new Egyptian defensive tactics.

On 8 October 1973, with the Israeli reserves now mobilized and with three divisions available in the Sinai, but with air reconnaissance still inhibited by the Egyptian air defense umbrella and therefore with limited tactical intelligence, the Israeli Army launched a larger, more prepared counterattack. However, the Egyptians held and the Israelis lost 250 tanks. The Israelis went over to the defensive until they developed combined arms tactics to defeat the new Egyptian capabilities. Consequently, the Egyptians exhausted themselves in several offensives designed to relieve pressure on the Syrians in the Golan Heights.

3. Archer Jones, *The Art of War in the Western World* (New York: Oxford University Press, 1987), pp. 602-604.

To summarize, experience is one of the most important sources of good decision making as long as we are aware of its pitfalls and are humble about the human frailties that we cannot fully escape. How are we to exercise that care? The key is to treat experience and lessons-learned as one source of data or evidence to bring to bear on a decision, along with all other useful information from other sources. How to put this into practice takes us to the last method of decision making.

ANALYSIS-BASED DECISION MAKING

So how do we approach complex, unfamiliar decisions without a pattern to follow? Analytical decision making involves carefully taking a problem apart, collecting and testing the evidence we need to address it, then comparing and selecting an alternative. Analysis-based decision making is generally comprised of the following steps:

- Define the problem and the decision maker's objectives
- Select criteria that capture the most important aspects of the problem
- Identify alternatives for solving the problem
- Evaluate the alternatives using the criteria
- Identify the consequences of each alternative
- Assess the risks and uncertainties entailed by these consequences
- Identify the alternative, within the resources available, which performs best

Although we have identified a series of steps above, decision making must never become a rigid set of techniques or a simple checklist. We must flexibly apply our approach. Too many decisions are unique and take their character from a specific, contemporaneous problem. Some decisions, especially technology-related problems, require detailed and precise information about each alternative before we can make an informed choice. Some decisions can be outlined quickly on a notepad or by closing the door and thinking for an hour. Every now and then, time and resource constraints limit us to just a few broad alternatives and require a quick decision with scant information.

Put another way, a decision may not *exactly* conform to the steps described above, but we should consider each step before discarding any of them. Above all, analysis-based decision making requires that we conscientiously cultivate the intellectual habits of objectivity, explicitness, clarity, sufficiency, and skepticism. Sufficiency means that we determine when we have enough information to decide; to do so, we must identify which information is important and which is not. Skepticism means that throughout decision making, we ask ourselves continuously what we think is true or false and why.

The strength of analysis-based decision making is that it enables decision makers to go beyond the limits of procedure and experience. We have already mentioned some of the mistakes we are prone to make when we assess experiences. Add to that list the difficulties we face trying to solve complex problems, those with many working parts. Our unaided ability to handle problems with just three or four significant factors is usually quite limited. Defense problems take us quickly beyond that. If we are defining a service's force structure requirements to support the current strategy, we must consider many historical, political, and military factors, including regional political stability, crisis response times, and the unified commanders' war plans.

The very act of structuring a problem often provides clarity. Analysis-based decision making allows us to deal with complex problems systematically in a step-wise fashion, with each step

made explicit and examined separately as a comprehensible part of the whole. The structuring inherent in analysis-based decision making permits us and others to retrace our steps—an additional precaution against mistakes of various kinds.

During analysis-based decision making, we gather and weigh information to determine what is reliable and useful and what is not. Note that in this discussion we have yet to mention numbers. It is a common misconception that analysis-based decision making is synonymous with quantitative analysis. While numbers are often convenient tools, in many cases they are not appropriate tools. Analysis-based decision making at its heart is a way of critical thinking that is applicable to all kinds of problems, quantitative and qualitative, professional and personal. The good decision maker always allows the character of the problem to drive the specifics of his or her approach and never the other way around. When numbers are useful, we use them. When they are not, we do not. Good analysis incorporates objective and subjective information whose quantity and emphasis vary with each problem.

As with the other methods, analysis-based decision making has important weaknesses. First, the process requires time to gather, assess, and interpret information. The time needed may not be great, but *some* time will always be involved. Therefore, when a decision is needed very quickly, reflexively, as in close combat, the formal analysis-based approach may not be appropriate, even though we use analytical decision making to design the procedures and equipment upon which individuals in time-critical situations rely.

Second, analysis-based decision making requires that key information be available about a decision. Virtually all decisions contain some risk and analysis-based decision making can be very useful for identifying its sources and implications. But what happens if the decision is dominated by risks? Analysis-based decision making is inadequate for these kinds of decisions. The prudent decision maker will instead carefully rely on experience, judgment, intuition, and luck. That said, it is all too easy to jump to the conclusion that a particular defense decision is dominated by risk and to discard analysis-based decision making. In the great majority of cases, there is much information we can gather, estimate, or infer. In other words, analysis-based decision making can still be effective in the presence of considerable uncertainty.

Third, we use analysis-based decision making most appropriately to decide among different alternatives to reach a goal. Analytical decision making is less useful for deciding what goal to seek. This is because most goals involve value judgments. For example, what role should the United States play in the world? How much emphasis should the United States place on military operations in its foreign policy? Should the United States actively promote democracies in the world, even at the cost of economic opportunities? How important should force protection and casualty-avoidance be in operational planning? Should all military jobs be open to women? These are critical questions, and analysis can help to address the underlying issues they raise and demonstrate some of their costs and benefits. But at the point where the consideration of values begins to dominate, analytical decision making becomes artificial. These decisions require that we make moral and ethical judgments. After we have done so and set our goal, we can turn to analysis to help us determine how to best reach it.

There are also weaknesses that have more to do with the decision maker than with the analytical approach per se. Analysis-based decision making is frequently misapplied, or, even if properly applied, poorly executed. Over-reliance on quantitative methods is a good example. Many decisions resist quantitative analysis, although they still can benefit from good qualita-

tive thinking. Esprit de corps may be best evaluated *qualitatively* rather than quantitatively, yet many individuals, even experienced professional analysts, are tempted to impose quantitative analysis on such issues. The results are properly criticized as rigid, misleading, and often silly.

The inflexible use of analysis-based decision making can produce excessively academic and impractical results. For example, there is extensive literature on how to make decisions during crisis by using highly abstract mathematical models—models that are too simple to represent reality and, at the same time, too complex to use when time is scarce. Other problems arise when a decision maker depends on methods so technical as to be incomprehensible to others who may need to be persuaded. Decisions must be explainable to those who have to support or execute them.

A similar difficulty is that analytical decision making can sometimes become disconnected from common sense—shorthand for our accumulated experience, intuition and judgment. Sound decision making and sound common sense are completely compatible, but decision makers can become so focused on the *process* of decision making that they can lose touch with reality. We must always subject decisions to the test of common sense. That a decision may not pass this test need not mean it is incorrect. Common sense may be flat wrong because there may be something new at work, like a leap-ahead operational concept (network-centric warfare), technology (stealth), or weapon system (the airborne laser). But, when a decision seems to defy common sense, we need to investigate. While it may be because the alternative we chose represents a genuine advance over what common sense told us was possible, it may also be because the decision became disconnected from reality.

Finally, analysis-based decision making is most likely to go wrong when we have not tailored it to the problem we are solving. The method of attacking any problem must be driven entirely by the requirements and character of that problem. Analytical decision making loses its way when we forget this basic principle. Remember that analytical decision making is not a substitute for experience, professional judgment, and intuition.

ANALYTIC AND INTUITIVE SOLUTIONS: LIMITS AND OVERLAPS

Analytic and intuitive approaches are often contrasted with each other in terms of their approaches, but, for similar problems, do they really achieve different results? In the 1970s, behavioral scientists researched this question. Studies compared intuitive and analytic solutions to simple problems, such as how many people do we need to assemble for the probability of two having the same birthdays to exceed 50 percent (answer: 23) and to more complex problems where hard data were available, i.e., there was a right answer. Peters, et al.,⁴ compiled solutions between two groups that used intuitive and analytic approaches and graphed the results. The members of the intuitive group were half as likely to achieve a perfect answer, but the range and magnitude of their errors was much smaller than that of the analytic problem solvers. In other words, when analysis was done correctly, it was near perfect, but when it was done poorly, it was wildly wrong. Intuition provided a higher number of errors (a more general solution) with less danger of being completely wrong.

4. Peters, J.T., et al, "A Note on Intuitive vs. Analytic Thinking," *Organizational Behavior and Human Performance* 12 (1974): 125-131.

RATIONAL DECISION MAKING

Taken together, experience and analysis are our two most powerful techniques for decision making and their connection is often synergistic. The latter allows us to address areas unfamiliar to us while experience informs analysis. Experience, judgment, and intuition, therefore, should be coupled to analysis-based decision making, each making the others stronger, more useful, and more practical. Rational decision making, the combination of reason (analysis) and experience, is therefore where this discourse leads us. By deciding rationally, we subject experience, professional judgment, intuition, and analysis, along with all other sources of information, to agreed-upon standards of rigor, soundness, and explicitness.

Thus, by advocating rational decision making, we are encouraging you to apply a careful combination of experience-based and analysis-based decision making procedures to solve complex problems, recognizing the strengths and weaknesses of each while remembering that their mix varies with each decision. Typically, the military officer and defense civilian bring their operational experience to decision making while the analyst brings specialized knowledge.

Reconciliation and Execution

The issues we encounter implementing a solution to a force planning problem are largely in the realm of Strategic Leadership, a subject of your Naval War College course in Policy Making and Implementation. We consider some aspects of implementation problems in this course as well, for two reasons. First, we can seldom implement a defense decision without compromises. The word “friction” best summarizes the many reasons for this. Our U.S. defense and military organizations tend to be large, complex, and bureaucratic. Executing a decision in such organizations can require the direction and cooperation of large numbers of fallible human beings with their own preoccupations, desires, capabilities, and interests. Execution also requires resources that are inevitably limited. Finally, execution must be subdivided into individual steps that are parceled out to different organizational sub-units, each requiring coordination with the rest.

This problem of organizational and bureaucratic friction means that seldom can we simply implement what we regard as the “best” solution to a problem. Instead, we usually seek a satisfactory solution that can be implemented effectively rather than a “best” solution that may be implemented poorly or incompletely. For this reason, we must consider what our organization is capable of achieving, which may be limited. This organizational limitation may enter decision making as early as when we choose the alternatives to evaluate or later as a more general constraint treated similarly to a lack of resources. There is an old story about two people at a county fair drawn to the booth advertising a dancing dog. Upon seeing him in action, one remarks that the dog dances badly. The other answers that it is a wonder the dog dances at all. Something similar can be said about large organizations and their execution of program and policy decisions.

The second point about execution flows from the first. Whatever course of action we seek to implement, the cooperation of other organizations is almost certain to be necessary. Equally often, these other organizations will have their own preferences for what course of action to select and how to implement it, and their preferences may not be ours. Sometimes we can overcome this disagreement with a simple order; much more often we must negotiate. In any case, we should prefer to obtain the willing cooperation of others rather than to compel it. The process of obtaining that cooperation means we seek solutions to problems that are acceptable not only to

ourselves but for the others whose help we need. In this course, we call that process reconciliation. Finding a way to satisfactorily accommodate the interests of many within a particular course of action is the basis of reconciliation. Analytical decision making is a powerful approach for identifying which courses of action will accomplish that better than others. Equally important, the orderliness, openness, and objectivity of the approach can help establish trust and credibility between contentious parties with conflicting points of view.

An Executive Decision Making Framework

As we have discussed, a major strength of analysis-based decision making is that it is an orderly, step-wise, and explicit process. You may find many prescriptions for how to carry out this process in the literature on management, decision making, policy analysis, and economics. These prescriptions are called by different names and their details may differ in minor ways, but at their core they are all basically the same. This is not surprising because the same fundamental rules of deductive and inductive logic lie at the root of all these approaches to decision making. The better frameworks all provide a structured way of discriminating what is important from what is not, of bounding decisions, of blending objective and intuitive factors, and they provide a logical sequence of steps that produce consistent, high quality, rational results.

The approach we use to encourage rational decision making in this course is called an “Executive Decision Making Framework,” shown in figure 1-1, and in most respects it is typical of the approaches you will find in academic literature about decision making. The one notable difference is that we incorporate Reconciliation as a distinct step within the framework rather than moving from the Decision directly to Execution. We included Reconciliation to reflect our strong view that we cannot consider the problem solved until we have an option that can be executed. In the Department of Defense, that means some form of acceptance by most if not all the interested parties or stakeholders. The most brilliant solutions are worthless if we cannot execute them or if the costs of executing them—including those due to obstructionism—exceed their benefits.

Our Executive Decision Making Framework consists of five steps. This course is devoted to explicating the first four: Definition, Analysis, Decision, and Reconciliation. The boundary between the U.S. Naval War College’s Executive Decision Making and the Policy Making and Implementation courses lies between Reconciliation and Execution; addressing Execution, as we mentioned earlier, is the province of the Policy Making and Implementation faculty.

Our Executive Decision Making Framework is *not* a checklist we follow ad nauseam for every problem. As the previous discussion emphasized, the art and science of rational decision making involves tailoring one’s approach—the use of analysis and the blend of experience—to the character and the context of the problem. This means that some aspects of the framework will increase or decrease in importance depending upon what we need to do. Therefore, consider the Executive Decision Making Framework as broad guidance on how to organize decision making to ensure we consider each step appropriately.

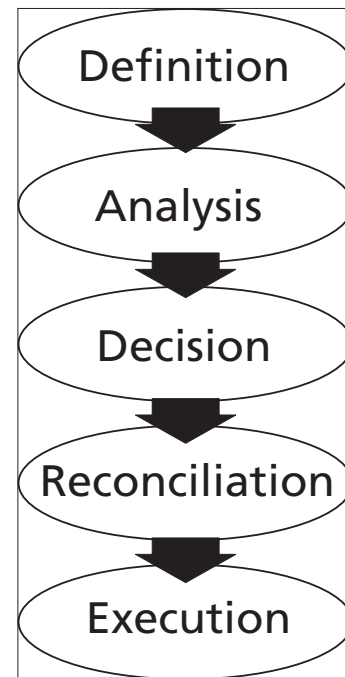


Figure 1-1. An Executive Decision Making Framework

The Definition Phase refers to the process of fully understanding and specifying the problem we must solve. This step determines the path of subsequent decision making and, most importantly, it enables us to know whether we have solved the problem. In the absence of proper problem definition, everything that follows lacks a sense of direction. The likeliest result is that we arrive at the end of our decision making having lost touch with the problem we set out to solve.

The next step, the Analysis Phase, is multifaceted. It includes developing the criteria we will use to compare the alternatives, selecting the analytical method to make the comparison, evaluating risk and uncertainty, identifying or constructing alternatives, organizing the criteria into a model, and finally using the model to expose the strengths and weaknesses of the alternatives.

We give the Decision Phase its own step to reflect that using the results of our analysis to support decision making requires additional skills. Rarely can we adopt raw analytical results without additional refinements to incorporate the practical considerations of politics, timing, personalities, ethics, spillover effects, and the like.

The Reconciliation Phase is the step in which our decision collides with those taken or preferred by the other stakeholders of the problem. In this step, our challenge is to find a course of action that allows us to secure our objectives and that allows others to achieve theirs. Such common ground is the basis for negotiated settlements.

You will find a single page version of our framework in Appendix 1 and an expanded version in Appendix 2. They will help you recapture the principal elements of the following chapters throughout this trimester and later while engaged in making defense decisions yourself.

Summary

With this book, our goal is to couple the military judgment of the professional officer and career defense civilian with the powerful tools of analysis to encourage rational decision making. By doing so, we provide the formal process of defense resource allocation with its most important constituent element: executive decision makers who make the best defense decisions in support of U.S. national security. We do that by giving you a decision making framework and a thorough grounding in analysis, two invaluable tools to help you do the right thing. You bring the experience.